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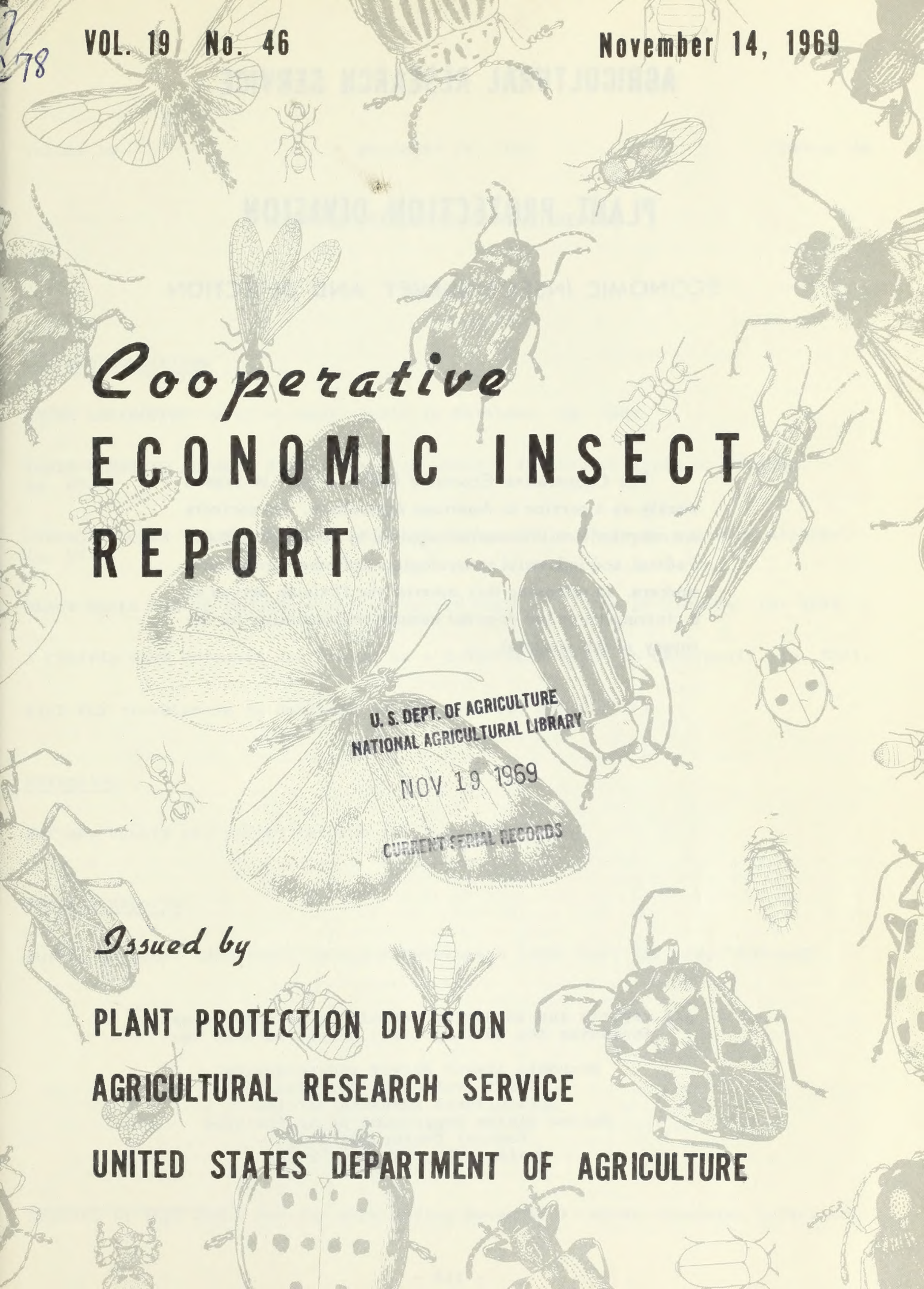
VOL. 19 No. 46 November 14, 1969



Cooperative
ECONOMIC INSECT REPORT

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AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

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ECONOMIC INSECT SURVEY AND DETECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Plant Protection Division
Agricultural Research Service
United States Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782

Volume 19 November 14, 1969 Number 46

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

ASTER LEAFHOPPER heavy on small grain in Oklahoma. (p. 833).

THREE-CORNERED ALFALFA HOPPER heavy in alfalfa in several areas of Arizona. (p. 833).

CABBAGE LOOPER and IMPORTED CABBAGEWORM damaged cole crops in southern Alabama. (p. 833).

BLACK SCALE and an ARMORED SCALE at record high on citrus in Florida. (p. 834).

A CYNIPID WASP deformed oak shoots in a 5,000-acre stand in California. (p. 835).

FACE FLY troublesome in northern California. (p. 835).

Detection

For new county and parish records see page 837.

Special Reports

Survey Methods. Additional Selected References 1968. Part XXI. (pp. 838-842).

Reports in this issue are for week ending November 7 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING NOVEMBER 10

HIGHLIGHTS: Warm weather predominated in the West and cool weather in the East. Light snow fell in the western mountains and in the southern Appalachians.

PRECIPITATION: Rain continued to soak the northwest Pacific coast and the eastern half of the Nation at the beginning of the week. In the Northwest, winds gusting to 70 m.p.h. accompanied the heavy rains along the coast. Rains of 2 to 3 inches or more fell on Tuesday and Tuesday night. Snow fell in the mountains at 5,000 feet from Washington to northern California and eastward to northwestern Montana. Precipitation occurred on Monday and Tuesday from the Mississippi River Valley to the Atlantic Ocean. Some wet snow was mixed with the rain in the northern sections of Indiana and Ohio and in the higher elevations in Pennsylvania and West Virginia. The southern Appalachians received the first snow of the season on Tuesday. Rains tapered off west of the Appalachians after Tuesday but continued in the Northeast with some localities receiving an inch or more on Wednesday and Thursday. By late Thursday, light rain continued in parts of New York and Pennsylvania but had ended elsewhere in the East. Occasional rain fell in California and Nevada. An inch of snow fell at Blue Canyon, California, and 3 inches in central Nevada. In general, snow fell above 4,000 feet in northern California and above 7,000 feet in southern California.

TEMPERATURE: Clear, cool weather predominated over most of the Nation early in the week. It was abnormally cool over the intermountain region and in the Deep South. A polar high brought freezing temperatures into the Deep South by midweek. Frost or freezing temperatures occurred from Alabama to South Carolina and in the Florida Panhandle. Tallahassee, Florida, registered 32° on Wednesday morning. By Wednesday afternoon, quick-warming temperatures pushed afternoon temperatures into the 70's in the western Great Plains from the Canadian border to Texas. Miles City, Montana, and Dickinson, North Dakota, registered 72° and San Antonio, Texas 75° on Wednesday afternoon. Weather of the week continued on page 837.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ASTER LEAFHOPPER (Macrosteles fascifrons) - OKLAHOMA - Heavy in small grains in Marshall County. Controls applied to some fields. (Okla. Coop. Sur.).

GREENBUG (Schizaphis graminum) - SOUTH DAKOTA - Economic in 1 wheatfield in northwestern Beadle County. Less than 10 per 40 row feet in northern Haakon County. Less than 1 per 10 row feet in eastern Pennington County. (Jones). ARKANSAS - Few small colonies in wheat in Washington County. Greenbug averaged less than 1 per linear foot. (Boyer).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Ranged 1,000-2,000 per 100 sweeps on forage legumes on eastern side of Salt River Valley in Maricopa County. (Ariz. Coop. Sur.). OREGON - Ranged 2-3 per sweep in alfalfa in Morrow and Umatilla Counties. (Goeden). VIRGINIA - Averaged 60 per 100 sweeps on forage in 2 Charlotte County fields. (Allen).

TURF, PASTURES, RANGELAND

RHODES-GRASS SCALE (Antonina graminis) - CALIFORNIA - Heavy on hybrid Bermuda grass lawns at El Cajon, San Diego County. (Cal. Coop. Rpt.).

SORGHUM WEBWORM (Celama sorghiella) - ALABAMA - Larvae medium on immature seed heads in 25 acres of Johnson grass; mature seed heads showed signs of previous feeding. (Yates, Miller).

FORAGE LEGUMES

SWEETCLOVER WEEVIL (Sitona cylindricollis) - NEBRASKA - Adults averaged 161 per 100 sweeps in 2 Saunders County sweetclover fields, and 450 per 100 sweeps in 3 fields in Butler County. (Beland, Stevens).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - ARIZONA - Larvae averaged 20 per 100 sweeps of alfalfa in one field in Maricopa County. (Ariz. Coop. Sur.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Declined on alfalfa. Averaged 120 per 100 sweeps in Yuma County. Ranged 400-1,000 per 100 sweeps at Tempe, Mesa, and Chandler in Maricopa County. (Ariz. Coop. Sur.).

LYGUS BUGS (Lygus spp.) - ARIZONA - Average per 100 sweeps of alfalfa as follows: 60 at Yuma in Yuma County; 70 on eastern side of Salt River Valley in Maricopa County. (Ariz. Coop. Sur.).

PEA APHID (Acyrthosiphon pisum) - VIRGINIA - Averaged 100 per 100 sweeps of forage in 2 Charlotte County fields. (Allen). NEBRASKA - Averaged about 100 per sweep in 3 Butler County sweetclover fields. (Beland, Stevens). NEW MEXICO - Light on alfalfa south of Albuquerque in Bernalillo County. (Heninger).

COLE CROPS

CABBAGE LOOPER (Trichoplusia ni) - ALABAMA - All instars of this species and Pieris rapae (imported cabbageworm) medium to heavy, ranged 2-3 per plant; damaged 700-1,000 acres of untreated commercial cabbage, collards, and turnips in Baldwin County area. Controls applied. Adults of P. rapae laying eggs. (Leeper, Turner).

CABBAGE APHID (Brevicoryne brassicae) - ALABAMA - Light to medium, ranged 25-100 per plant, in isolated areas of commercial plantings of cabbage, collards, and turnips in southern Baldwin County. (Leeper, Turner).

DECIDUOUS FRUITS AND NUTS

A SCARAB (*Pleocoma crinita*) - OREGON - Males emerged and females surfaced October 31 for first time in 1969-1970 season. Present in widely scattered apple and pear orchards at Hood River, Hood River County. (Chestnut, Bakkela).

BLACK-MARGINED APHID (*Monellia costalis*) - ARIZONA - Heavy on pecan trees at Yuma, Yuma County, and Phoenix, Maricopa County. Honeydew heavy. (Ariz. Coop. Sur.).

CITRUS

Citrus Insect Situation in Florida - End of October - CITRUS RUST MITE (*Phyllocoptruta oleivora*) infested 74 (norm 70) percent of groves; economic in 61 (norm 49) percent. Population continued above normal and in high range. Little change expected. Highest districts west, north, south, and central. TEXAS CITRUS MITE (*Eutetranychus banksi*) in 24 (norm 23) percent of groves; economic in 6 (norm 7) percent. Normal and low. Slight increase expected. Highest district central. CITRUS RED MITE (*Panonychus citri*) in 31 (norm 28) percent of groves; economic in 8 (norm 7) percent. Near normal and in low range. Gradual increase expected. Highest district west. GLOVER SCALE (*Lepidosaphes gloverii*) in 62 (norm 62) percent of groves; economic in 4 (norm 9) percent. Decreased. Now below normal and in low range. Little change expected. Highest districts north and west. PURPLE SCALE (*L. beckii*) in 54 (norm 56) percent of groves; economic in 4 (norm 3) percent. Normal and low; little change expected. Highest district north. CHAFF SCALE (*Parlatoria pergandii*) in 39 (norm 41) percent of groves; economic in 3 (norm 4) percent. Increased but will remain in low range in all districts. YELLOW SCALE (*Aonidiella citrina*) in 47 (norm 55) percent of groves; economic in 5 (norm 9) percent. Below normal abundance and will remain at low level in most districts. Highest district north. BLACK SCALE (*Saissetia oleae*) in 51 (norm 32) percent of groves; economic in 25 (norm 10) percent. Highest for October in 18 years of record. Expected to continue near current moderate level until cool weather slows activity. Highest districts central, west, and east. An ARMORED SCALE (*Unaspis citri*) infested 24 percent of groves; moderate to heavy in 9 percent. At record high level and will continue to increase. WHITEFLIES in 81 (norm 68) percent of groves; moderate to heavy in 34 (norm 12) percent. In high range, highest on record for October. Nearly equals record for any month in past 18 years. Decrease expected after mid-November. Highest districts east, north, and west. (W.A. Simanton, (Citrus Expt. Sta., Lake Alfred)).

ORNAMENTALS

A CONIFER APHID (*Cinara tujafilina*) - OKLAHOMA - First of season on arborvitae in Payne County. Usually found early in December. (Okla. Coop. Sur.).

GREENHOUSE THRIPS (*Heliothrips haemorrhoidalis*) - CALIFORNIA - Heavy on pyracantha shrubs at La Jolla, San Diego County. (Cal. Coop. Rpt.).

A MEALYBUG (*Pseudococcus obscurus*) - CALIFORNIA - Medium to heavy on wintergreen barberry nursery stock at Irvine, Orange County. (Cal. Coop. Rpt.).

FOREST AND SHADE TREES

OLETHREUTID MOTHS (*Rhyacionia* spp.) - ALABAMA - *R. frustrana* (Nantucket pine tip moth) pupae heavy in isolated areas of highway plantings of 3 to 8-foot-high loblolly and Virginia pines through much of central and northern areas. Damaged tips back to 6 inches. (Wade et al.). VIRGINIA - *R. frustrana* active, 25 percent infestation, on 4-acre red pine plantation in Augusta County and in 100 loblolly pines on 3-acre plantation at Augusta. (For. Pest Sur. Rpt., Sept.). WEST VIRGINIA - *R. buoliana* (European pine shoot moth) infested 75 percent of ornamental pines in 1 acre in Putnam County. (W. Va. Ins. Sur.).

A SOFT SCALE (*Toumeyella pinicola*) - CALIFORNIA - Heavy on Monterey pines at Watsonville, Santa Cruz County. (Cal. Coop. Rpt.).

A CYNIPID WASP (*Andricus crystallinus*) - CALIFORNIA - Heavy; deformed oak shoots in 5,000-acre stand on Shadow Ranch along Pacheco Pass at Gilroy, Santa Clara County. (Cal. Coop. Rpt.).

FOREST TENT CATERPILLAR (*Malacosoma disstria*) - MINNESOTA - Egg mass survey in progress. Early indications point toward lower population for 1970. (Minn. Pest Rpt.).

MAN AND ANIMALS

FACE FLY (*Musca autumnalis*) - CALIFORNIA - Entering homes, schools, and churches, swarms annoyed people in northern area. Flies 1,700 per square foot in attic room at Cutten, Humboldt County. (Cal. Coop. Rpt.). MISSISSIPPI - Averaged 5 per face on 30 cattle in Clay County. (Sartor).

HORN FLY (*Haematobia irritans*) - OKLAHOMA - Ranged 10-30 per head on Major County cattle and 50-75 per head in Payne County. (Okla. Coop. Sur.). MISSISSIPPI - Averaged 25 per head on 30 cattle in Clay County. (Sartor).

STABLE FLY (*Stomoxys calcitrans*) - OKLAHOMA - Averaged 4 per head on Payne County cattle. Increased from 2 per head 2 weeks ago despite recent cool weather. (Okla. Coop. Sur.).

SCREW-WORM (*Cochliomyia hominivorax*) - No cases reported in U.S. November 2-8. Total of 232 laboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico October 18-25 as follows: Sonora 57, Chihuahua 138, Coahuila 10, Nuevo Leon 2, Tamaulipas 25. Total of 23 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 9,088,000; Arizona 1,800,000; California 1,600,000; Mexico 121,354,000. (Anim. Health Div.).

COMMON CATTLE GRUB (*Hypoderma lineatum*) - OKLAHOMA - Up to 8 per head on Payne County cattle. Grubs in about half of cattle. (Okla. Coop. Sur.).

LONG-NOSED CATTLE LOUSE (*Linognathus vituli*) - MISSISSIPPI - Averaged 15 per 4-inch square of skin surface at State College, Oktibbeha County. (Sartor).

BROWN RECLUSE SPIDER (*Loxosceles reclusa*) - TENNESSEE - Collected in Hamilton County for a new county record. Determined by L.V. Smith. (Smith). Several specimens collected from geology laboratory of TVA complex in Knox County. Control planned. (Bennett).

HOUSEHOLDS AND STRUCTURES

WHARF BORER (*Nacerdes melanura*) - IOWA - Infested wood of brine vats in food processing plant in Muscatine County for a new county record. (Iowa Ins. Sur., Oct. 24).

A SUBTERRANEAN TERMITE (*Reticulitermes virginicus*) - MARYLAND - Adults swarmed inside of bowling alley at College Park, Prince Georges County. (U. Md., Ent. Dept.).

BENEFICIAL INSECTS

CONVERGENT LADY BEETLE (*Hippodamia convergens*) - ARKANSAS - Adults 8-10 per 100 sweeps of northwestern area alfalfa. (Boyer).

DAMSEL BUGS (*Nabis* spp.) - ARKANSAS - Adults 8-10 in 100 sweeps; still active in northwestern area alfalfa. (Boyer).

A WEEVIL (*Phrydiuchus* sp.) - OREGON - About 200 adults released November 5 on Mediterranean sage (*Salvia aethiopis*) at Lakeview, Lake County. Over 350 released since October 9 at 4 release sites. (Isley, Horning).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CARIBBEAN FRUIT FLY (*Anastrepha suspensa*) - FLORIDA - Larvae infested 10-year-old calamondin tree; about 50 percent fruit drop at Daytona Beach, Volusia County. (Pott).

PINK BOLLWORM (*Pectinophora gossypiella*) - CALIFORNIA - Sterile releases at Borrego Springs terminated October 31; total released for season: 3,307,060. Released 979,200 sterile moths November 3-7 in Kern County. (PPD). NEW MEXICO - Larvae infested 64-100 percent of bolls in 5 southern Eddy County cotton fields. (Mathews). Larvae still heavy in 3 southern Dona Ana County fields. No adults in hexalure traps. Light in bolls from Las Cruces south. (Campbell, Riddle). TEXAS - Catch of one in blacklight trap November 1-6 at Waco, McLennan County. (Ent. Res. Div.).

SOYBEAN CYST NEMATODE (*Heterodera glycines*) - NORTH CAROLINA - Collected in Hyde County by J.R. Burbate, September 17. Determined by V.H. Owens; confirmed by A.M. Golden. This is a new county record. (PPD).

A WHITE-FRINGED BEETLE (*Graphognathus peregrinus*) - LOUISIANA - Adults taken in morning-glory and weeds at Bossier City in Bossier Parish by J.A. Turner October 23. Adult collected on wild honeysuckle and weeds in railroad yard at Minden in Webster Parish by F.L. Hughes October 29. Determined by V.H. Owens; confirmed by R.E. Warner. These are new parish records. (PPD).

HAWAII INSECT REPORT

General Vegetables - All instars of BEAN FLY (*Melanagromyza phaseoli*) moderate to heavy at Waikapu, Haiku, and Makawao, Maui; heavy in small planting at Hoolehua, Molokai. Attempts to recover bean fly parasites, *Opius* spp., released at Waikapu in August, negative. (Miyahira, Fujimoto).

Ornamentals - An ARMORED SCALE (*Phenacaspis cockerelli*) heavy; up to 36 per square inch on plumeria leaves at Kona, Hawaii. (Yoshioka). All instars of a PLATASPID BUG (*Coptosoma xanthogramma*) medium to heavy, mostly on terminals, of maunaloa vines (*Canavalia cathartica*) at Kaneohe and Kahaluu, Oahu. (Funasaki).

Man and Animals - Mosquitoes collected during October from 52 light traps on Oahu: *Aedes vexans nocturnus* 45 and *Culex pipiens quinquefasciatus* 1,192. *Aedes* ranged up to 23 per trap at Kailua. *Culex* ranged up to 133 per trap at Waipio. (Mosq. Control Br., State Dept. of Health).

Stored Products - Larvae and adults of COWPEA WEEVIL (*Callosobruchus maculatus*) heavy in stored cowpeas in several schools at Hilo, Hawaii. (Yoshioka).

Beneficial Insects - All instars of LANTANA LEAF BEETLE (*Octotoma scabripennis*) heavy on lantana leaves at Kona, Hawaii; larval mines extensive. (Yoshioka).

Miscellaneous Pests - Surveys for GIANT AFRICAN SNAIL (*Achatina fulica*) in previously treated areas negative at Kona, Hawaii. On Kauai, 337 snails destroyed at Poipu and 2 at Wahiawa during October. (Sugawa).

DETECTION

New County and Parish Records - BROWN RECLUSE SPIDER (*Loxosceles reclusa*) TENNESSEE - Hamilton. (p. 835). SOYBEAN CYST NEMATODE (*Heterodera glycines*) NORTH CAROLINA - Hyde. (p. 836). WHARF BORER (*Nacerdes melanura*) IOWA - Muscatine. (p. 835). A WHITE-FRINGED BEETLE (*Graphognathus peregrinus*) LOUISIANA - Bossier, Webster. (p. 836).

LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 10/31-11/6, BL - Armyworm (*Pseudaletia unipuncta*) 7, black cutworm (*Agrotis ipsilon*) 6, fall armyworm (*Spodoptera frugiperda*) 3, granulate cutworm (*Feltia subterranea*) 7, yellow-striped armyworm (*Prodenia ornithogalli*) 7. MISSISSIPPI - Stoneville, 11/1-7, 2BL, 31-73°F., precip. 0.05 - Armyworm 408, beet armyworm (*Spodoptera exigua*) 307, black cutworm 92, cabbage looper (*Trichoplusia ni*) 16, corn earworm (*Heliothis zea*) 3, fall armyworm 137, granulate cutworm 13. TEXAS - Waco, 11/1-6, BL - Armyworm 35, beet armyworm 10, cabbage looper 1, fall armyworm 23, granulate cutworm 18, variegated cutworm (*Peridroma saucia*) 25.

CORRECTIONS

19(13):219 - BAGWORM (Thyridopteryx ephemeraeformis) - Last line: NEBRASKA should read *SOUTH DAKOTA*.

19(44):818 - Beneficial Insects - ... in June 1968 ... should read ... in June 1958 ... (Haw. Ins. Rpt.).

Weather of the week continued from page 832.
Some cooling occurred in the West late in the week with afternoon temperatures in the northern Great Plains dropping to the 40's and 50's. Most of the area west of the Mississippi River averaged warmer than normal. Parts of the northern Great Plains averaged 6° to 12° above normal. Above normal weekly average temperatures also occurred from Maryland to New England. Eastern New York and New England averaged 6° to 15° warmer than normal. A large area from the Ohio River Valley to Alabama averaged 4° to 6° colder than normal. (Summary supplied by Environmental Data Service, ESSA.)

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Part XXI

Additional copies of Parts I through XXI of this bibliography are available from Survey and Detection Operations.

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